

What Works Clearinghouse



Early Childhood Education

June 11, 2007

Ready, Set, Leap!®

Program description	<i>Ready, Set, Leap!</i> ® is a comprehensive preschool curriculum that focuses on early reading skills such as phonemic awareness, letter knowledge, and letter-sound correspondence using multi-sensory technology that incorporates touch, sight, and sound. The <i>Ready, Set, Leap!</i> ® curriculum is available in English and Spanish.
Research	One study of <i>Ready, Set, Leap!</i> ® met the What Works Clearinghouse (WWC) evidence standards. ¹ The study included 254 low-income preschool children enrolled in 17 inner-city schools in Newark, New Jersey. This report focuses on immediate posttest findings to determine the effectiveness of the intervention. ² The WWC considers the extent of evidence for <i>Ready, Set, Leap!</i> ® to be small for oral language, print knowledge, phonological processing, and early reading/writing. No studies that met WWC evidence standards with or without reservations addressed cognition or math.
Effectiveness	<i>Ready, Set, Leap!</i> ® was found to have no discernible effects on oral language, print knowledge, phonological processing, and early reading/writing skills.

	<i>Oral language</i>	<i>Print knowledge</i>	<i>Phonological processing</i>	<i>Early reading/writing</i>	<i>Cognition</i>	<i>Math</i>
Rating of effectiveness	No discernible effects	No discernible effects	No discernible effects	No discernible effects	na	na
Improvement index³	Average: 0 percentile points	Average: +1 percentile point Range: -3 to +5 percentile points	Average: +8 percentile points Range: +6 to +11 percentile points	Average: +3 percentile points	na	na

na = not applicable

1. To be eligible for the WWC's review, the Early Childhood Education (ECE) intervention had to be implemented in English in center-based settings with children aged three to five or in preschool. The study included in this report implemented *Ready, Set, Leap!*® in combination with the existing curriculum used in the preschools (High/Scope).
2. The evidence presented in this report is based on available research. Findings and conclusions may change as new research becomes available. *Ready, Set, Leap!*® is being studied under the Preschool Curriculum Evaluation Research (PCER) Grants administered through the U.S. Department of Education's Institute of Education Sciences. The final PCER reports were not released in time to be reviewed for this report.
3. These numbers show the average and range of student-level improvement indices for all findings across the study.

Additional program information

Developer and contact

Ready, Set, Leap!® was developed and is distributed by LeapFrog SchoolHouse. Address: LeapFrog SchoolHouse, 6401 Hollis Street, Suite 100, Emeryville, CA 94608. Email: info@LeapFrogSchoolHouse.com. Web: www.leapfrogschoolhouse.com. Telephone: (800) 883-7430.

Scope of use

Information is not available on the number or demographics of children or centers using this program.

Teaching

Ready, Set, Leap!® can be implemented in varied early childhood settings, and children can be taught individually or in small groups. Teachers may adopt either a theme-based or literature-based teaching approach; both options are included with the curriculum. Each approach includes lesson plans, learning objectives, and assessment tools for a full year of instruction. In addition to language and literacy, the curriculum incorporates other academic, music, visual arts, and social/emotional development skills. The program has numerous components, including books, music, and multi-sensory technology such as the LeapPad® books, LeapMat™, and the LeapDesk™ workstations. The 19 LeapPad® interactive books provide opportunities

for read-alouds and shared reading. The LeapMat™ is an electronic pliable surface that displays the alphabet and can be used on the floor, wall, or table to teach letter-names and letter-sound recognition. The LeapDesk™ workstation is a compact desktop system with components such as letter manipulatives, headphones, and various system cards that teach spelling and decoding. The workstation also assesses student progress and offers customized lessons based on student need.

Cost

The complete *Ready, Set, Leap!*® program (English edition) costs \$1,995 a class and includes two teacher's manuals, a teacher's resource guide, 20 teaching strategy cards, four Big books, 19 read-aloud books, 18 interactive LeapPad® books, one colorful flip book, 14 poem and alphabet posters, four plush interactive learning aids, the Link to Lessons software, one LeapDesk™ workstation, 110 LeapDesk™ teaching and assessment system cards, three LeapPad® personal learning tools, one LeapMat™ learning surface, three Imagination Desk® learning centers, 12 Imagination Desk® interactive coloring books, and one phonemic awareness music CD and cassette. Pricing for the English and Spanish editions and the School and Home editions are also available on the website (see www.leapfrogschoolhouse.com).

Research

One study reviewed by the WWC investigated the effects of *Ready, Set, Leap!*® in a center-based setting. The study (RMC Research Corporation, 2003) was a randomized controlled trial that met WWC evidence standards. The study included 254 preschool children from 17 inner-city schools in Newark, New Jersey. RMC Research Corporation compared oral language, print knowledge, phonological processing, and early reading/writing outcomes for children in the intervention group that

participated in *Ready, Set, Leap!*® as well as the standard preschool curriculum (High/Scope) to a comparison group that participated only in High/Scope.⁴

Extent of evidence

The WWC categorizes the extent of evidence in each domain as small or moderate to large (see the [What Works Clearinghouse Extent of Evidence Categorization Scheme](#)). The extent of

4. High/Scope is a curriculum intended to be used as an open framework that adults adapt to the needs of their group. Active learning, rather than direct teaching or sequenced exercises, is its central tenet.

Research (continued)

evidence takes into account the number of studies and the total sample size across the studies that met WWC evidence standards with or without reservations.⁵

The WWC considers the extent of evidence for *Ready, Set, Leap!*[®] to be small for oral language, print knowledge, phonological processing, and early reading/writing. No studies that met WWC evidence standards with or without reservations addressed cognition or math.

Effectiveness Findings

The WWC review of interventions for Early Childhood Education addresses children's outcomes in six domains: oral language, print knowledge, phonological processing, early reading/writing, cognition, and math. The findings below present the authors' and the WWC-calculated estimates of the size and statistical significance of the effects of *Ready, Set, Leap!*[®] on children's performance.⁶

Oral language. RMC Research Corporation (2003) analyzed findings for one measure in this outcome domain [Peabody Picture Vocabulary Test-III (PPVT-III)] but did not find a statistically significant difference between the intervention and comparison groups, and the effect was not large enough to be considered substantively important according to the WWC standards (that is, at least 0.25). In the oral language domain, this study showed no discernible effects, according to WWC criteria.

Print knowledge. RMC Research Corporation (2003) analyzed findings for two measures in this outcome domain [Woodcock-Johnson III (W-J III) Letter-Word Identification subtest and the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Letter Naming Fluency subtest] but did not find a statistically significant difference between the intervention and comparison groups for either measure. The average effect size across the two outcomes was not large enough to be considered substantively important

according to the WWC standards (that is, at least 0.25). In the print knowledge domain, this study showed no discernible effects, according to WWC criteria.

Phonological processing. RMC Research Corporation (2003) analyzed findings for three measures in this outcome domain [Comprehensive Test of Phonological Processing (CTOPP) Blending Words subtest; DIBELS Initial Sound Fluency subtest; and W-J III Sound Awareness-Rhyming subtest] but did not find a statistically significant difference between the intervention and comparison groups for any of the measures. The average effect size across the three outcomes was not large enough to be considered substantively important according to the WWC standards (that is, at least 0.25). In the phonological processing domain, this study showed no discernible effects, according to WWC criteria.

Early reading/writing. RMC Research Corporation (2003) analyzed findings for one measure in this outcome domain (W-J III Passage Comprehension subtest) but did not find a statistically significant difference between the intervention and comparison groups. The effect size was not large enough to be considered substantively important according to the WWC standards (that is, at least 0.25). In the early reading/writing domain, this study showed no discernible effects, according to WWC criteria.

5. The Extent of Evidence Categorization was developed to tell readers how much evidence was used to determine the intervention rating, focusing on the number and sizes of studies. Additional factors that are associated with a related concept, external validity, such as students' demographics and the types of settings in which studies took place, are not taken into account for categorization.
6. The level of statistical significance was reported by the study authors or, where necessary, calculated by the WWC to correct for clustering within classrooms or schools and for multiple comparisons. For an explanation about the clustering correction, see the [WWC Tutorial on Mismatch](#). See [Technical Details of WWC-Conducted Computations](#) for the formulas the WWC used to calculate statistical significance. In the case of *Ready, Set, Leap!*[®], a correction for clustering was needed. Because the study authors corrected only for clustering within classrooms, the WWC applied a correction for clustering within the schools because school was the unit of assignment in the study reviewed.

Effectiveness *(continued)*

The WWC found *Ready, Set, Leap!*® to have no discernible effects for oral language, print knowledge, phonological processing, or early/reading writing

Rating of effectiveness

The WWC rates the effects of an intervention in a given outcome domain as positive, potentially positive, mixed, no discernible effects, potentially negative, or negative. The rating of effectiveness takes into account four factors: the quality of the research

Improvement index

The WWC computes an improvement index for each individual finding. In addition, within each outcome domain, the WWC computes an average improvement index for each study and an average improvement index across studies (see [Technical Details of WWC-Conducted Computations](#)). The improvement index represents the difference between the percentile rank of the average student in the intervention condition versus the percentile rank of the average student in the comparison condition. Unlike the rating of effectiveness, the improvement index is based entirely on the size of the effect, regardless of the statistical significance of the effect, the study design, or the analyses. The improvement index can take on values between -50 and +50, with positive numbers denoting results favorable to the intervention group.

design, the statistical significance of the findings,⁶ the size of the difference between participants in the intervention and the comparison conditions, and the consistency in findings across studies (see the [WWC Intervention Rating Scheme](#)).

The improvement index for oral language is 0 percentile points for the single outcome in the study. The average improvement index for print knowledge is +1 percentile point in the study, with a range of -3 to +5 percentile points across findings. The average improvement index for phonological processing is +8 percentile points in the study, with a range of +6 to +11 percentile points across findings. The improvement index for early reading/writing is +3 percentile points for the single outcome in the study.

Summary

The WWC reviewed one study on *Ready, Set, Leap!*® and it met the WWC evidence standards. Based on this single study, the WWC found no discernible effects for oral language, print knowledge, phonological processing, or early reading/writing. The evidence presented in this report may change as new research emerges.

Reference

Met WWC evidence standards

RMC Research Corporation. (2003). *Ready, Set, Leap! program: Newark prekindergarten study 2002–2003 final report*. Retrieved from Leap Frog Schoolhouse Web site: http://www.leapfrogschoolhouse.com/content/research/RMC_RSLreport.pdf

For more information about specific studies and WWC calculations, please see the [WWC Ready, Set, Leap!](#)® Technical Appendices.